

## **ISS and Human Research Project Office Highlights October 23, 2009**

### **ISS Research Program**

#### **FIR Outfitting begins on ISS**

The Fluids Integrated Rack (FIR) that was delivered to the International Space Station on STS-128 in August, has begun outfitting operations by the ISS Crew. The ISS crew removed the structural launch constraint hardware, installed Active Rack Isolation System hardware, connected the various interface cables to the ISS, and installed avionics packages on the back of the FIR's optic bench in preparation for installation of the initial payload in the FIR in November (Light Microscopy Module). (POC: MAH/Robert Corban, (216) 433-6642)

#### **ISS Research Project Completes Annual TCR/IBR**

The ISS Research Project successfully completed its TCR/IBR (Technical Content Review/Integrated Baseline Review) on October 14, 2009. The review meeting took place at Langley Research Center (LaRC) with representatives from the Exploration Technology Development Program Office (ETDPO), HQ, Ames Research Center (ARC), Glenn Research Center (GRC), Kennedy Space Center (KSC), and by WebEx, Marshall Space Flight Center (MSFC). No action items were assigned, and the revised project plan was signed off. (POC: MAH/Fred Kohl, (216) 433-2866)

#### **ZIN Technologies receives certification to AS9100 Rev. B**

ZIN Technologies, Inc announces certification to AS9100 Rev. B. This certification recognizes ZIN Technologies' commitment to excellence in nationally recognized aerospace standards for quality, safety and reliability.

This registration is the culmination of a year-long effort to incorporate 80 additional requirements to ISO 9001:2000 that are specific to the aerospace industry. A series of audits were conducted by the independent registrar, AQA International, to achieve certification. ZIN Technologies received an excellent rating with a score of 95%.

This certification recognizes ZIN Technologies capabilities in design, analysis, product development and servicing within the aerospace arena. ZIN Technologies commitment as a company to quality and continuous improvement is reflected in the excellent rating achieved through the performance of its employees. (POC: MAH/Tom St. Onge, (216) 433-3557)

### **Human Research Program**

#### **Flight Engineers complete first on-orbit data collection session for Harness SDTO.**

The first on-orbit data collection sessions for Harness Station Development Test Objective were completed by the Canadian Space Agency (CSA) FE4 (Flight Engineer) and the 17A FE2 onboard the ISS. These two crewmembers are now at the halfway point in their protocol. The Harness ("Treadmill Harness Candidate") SDTO is aimed at evaluating a new treadmill harness design for comfort during exercise and measuring the loads in the harness straps for direct comparison with the current US Treadmill Vibration Isolation System harness. Correlation of

comfort and load data is expected to lead to a better understanding of design requirements for improved future exercise harnesses. (POC: MAH/Gail Perusek, (215) 433-8729)

**Dr. Jerry Myers presents paper at 2009 MODSIM world conference.**

On Oct 14, 2009, Dr. Jerry Myers in the MAH branch presented a paper at the 2009 MODSIM (Modeling and Simulation) world conference. The presentation was also authored by John Brooker (REC), Dr. Beth Lewandowski (REB) and external contributors. The paper detailed the methodology for verifying, validating and determining the credibility of the Integrated medical model and supporting simulation modules per the NASA 7009 standard. A panel discussion on the validation of operational models for human health and behavior was held after the paper presentation, in which Dr. Myers was an invited participant. (POC: MAH/Jerry Myers, (216) 433-2864)